### Additional file 1: Content of sessions and home assignments of multimodal treatment

<table>
<thead>
<tr>
<th>Week</th>
<th>Content</th>
<th>Assignment (HTI* (5 assignments per week))</th>
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</table>
| 1    | • personal login to the HTI  
      • instruction on HTI use for assignments  
      • patients receive the book Explain Pain  
      • neurophysiology of (chronic) back pain  
      • local trunk muscle recruitment,  
        dissociation exercises, movement control  | • reading section of the book Explain Pain  
          • answer 18 questions related to the section read  
          • movement control exercise, frequency and duration reported in HTI |
| 2    | • neurophysiology of pain  
      • movement control exercises  
      • instruction on left-right recognition training with the Recognise® program  | • similar to previous week  
          • left-right recognition training with 3 x 20 pictures of trunk positions |
| 3    | • instruction on SRT  
      • neurophysiology of pain and analysis of patient’s individual situation  
      • purpose of SRLM explained with video  
      • movement control exercises  | • perform SRT on HTI (3 x 40 two numbered dots to discern)  
          • watching video with SRLM (linked on HTI)  
          • movement control exercise, frequency and duration reported in HTI |
| 4    | • education on the application of movement control into daily living  
      • graded exposure to functional movement  | • perform SRT on HTI (3 x 40 numbered dots)  
          • perform 3 x 20 images on Recognise®  
          • movement control exercise, frequency and duration reported in HTI |
| 5    | • analysis of everyday movements,  
      discussion of experienced limitations,  
      finding better movement strategies  | • perform SRT on HTI (1 x 40 letters to perceive)  
          • watching video with SRLM  
          • movement control exercise, frequency and duration reported in HTI |
| 6    | • as in previous session  
      • emphasis on individual resources and recreation  | • perform SRT on HTI (1 x 30 3-letter-words to perceive)  
          • watching video with FRLM  
          • movement control exercise, frequency and duration reported in HTI |
| 7    | • as in previous session  | • perform SRT on HTI (3 x 40 numbered dots)  
          • watching video with FRLM  
          • movement control exercise, frequency and duration reported in HTI |
| 8    | • wrap-up of acquired knowledge, newly integrated movement behaviour and handling of pain exacerbations in the future  | • reading a summary of the key points of the programme, including application to everyday life  
          • watching video with FRLM  
          • movement control exercise, frequency and duration reported in HTI |

HTI web-based home training interface; SRT Sensory Retraining Tool (discerning numbered dots, pressed on patient’s back); SRLM small range lumbar movement (to observe and perform, such as in a gymnastic tutorial video); FRLM full range lumbar movement.